

REMARKS

Applicants respectfully request reconsideration of the present application in view of the reasons that follow.

No claims are being amended, and claims 1-20 remain pending in this application.

Rejection under 35 U.S.C. § 103

Claims 1-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,354,151 to Giannesini (“Giannesini”) in view of U.S. Patent No. 4,844,213 to Travis (“Travis”). Applicants respectfully traverse this rejection for at least the following reasons.

As an initial matter, Applicants note that the Patent Office continues to maintain the rejection based on Giannesini and Travis, but fails to address applicants’ arguments regarding why Giannesini and Travis do not suggest the claimed invention. If the Examiner maintains the rejection based on Giannesini and Travis, the Examiner is respectfully requested to address Applicants’ arguments.

Independent claim 1 recites “a flexible riser protection configured to protect the riser from impacts by yielding to the force imposed by the ice when the riser is in an extended, load transferring mode, the upper end of the riser protection being attached to the loading/unloading buoy and the riser protection surrounding the riser.” The Patent Office recognizes that Giannesini fails to disclose the riser protection as recited in claim 1, but supplies Travis for disclosing this feature. Applicants submit, however, that Travis fails to suggest modifying the Giannesini system for loading at sea to include a flexible riser protection configured as recited in claim 1.

Giannesini teaches away from including a flexible riser protection as recited in claim 1 for its riser. Giannesini discloses that a goal of its system “*is to remedy the disadvantages associated with the previous systems and to suggest a less expensive system which does not leave any object exposed to any disturbing elements such as icebergs, violent storms, or any other weather event at sea that could damage one of the elements constituting a loading system*” (emphasis added, col. 1, line 64 to col. 2, line 2). Thus, Giannesini suggests a solution where its riser should not be exposed to an iceberg, a solution which would lead a

person skilled in the art away from protecting its riser in an extended, load-transferring mode. Giannesini's chosen solution is to retract its buoy and riser to a protected position inside a sea bed installation if any detrimental ice or weather conditions occur that could damage one of the elements (See col. 2, lines 3-13). In light of Giannesini teaching away from including a flexible riser protection as recited in claim 1 for its riser, such a modification clearly would not have been obvious to one skilled in the art.

Travis is directed to an energy absorption system designed for permitting a progressive collapse of the system by absorbing energy within the system. As disclosed in Travis, the energy absorption system is intended for use as guide rails along highways, and can absorb energy from impacts with vehicles such as cars (col. 1, lines 9-16). Travis, directed to energy absorption systems for highways, is in a different technical field from either the presently claimed invention or Giannesini, which are directed to offshore loading and unloading systems, and one skilled in the art would not have looked to Travis for solutions in modifying the Giannesini system.

The Patent Office asserts on page 4 of the Office Action, with respect to the combination of Giannesini and Travis, that the "motivation would have been to provide the flexible riser with an energy absorption system capable of preventing damage to the riser by floating ice along the exposed length of the riser." Applicants submit that, to the contrary, employing the energy absorption system of Travis to protect the riser of Giannesini would not have adequately protected the Giannesini riser, as would have been apparent to one skilled in the art, and therefore one skilled in the art would not have been motivated to combine Giannesini and Travis in the manner suggested by the Patent Office.

Employing the energy absorbing system of Travis to protect the riser of Giannesini would have been detrimental to such protection. The system according to Travis is designed to absorb the energy of an object impacting by progressively collapsing in plastic deformation, (See col. 2, lines 32-38), to thereby provide some protection for the impacting object, i.e, a motor vehicle. The flexible riser protection, as recited in claim 1, protects the riser from impacts by yielding to the force imposed by the ice when the riser is in an extended, load transferring mode. Employing an energy absorbing system such as that of Travis to protect risers from ice might crush the riser it is intended to protect. Further, the

Travis system is intended to protect the impacting object, which in the case of Giannesini would be any impacting ice. Thus, employing the energy absorbing system of Travis to protect the riser of Giannesini would tend to protect the ice impacting the riser, not the riser itself, and one skilled in the art would not have made such a modification as suggested by the Patent Office.

Further, claim 1 recites “the riser protection surrounding the riser.” Thus, according to disclosed embodiments, the riser protection is open at both ends in order to allow the riser freely to move relative to the protection. By contrast, Travis does not suggest a flexible riser protection surrounding a riser to be protected, and its cones would not allow a riser to freely slide relative to the riser protection. Indeed, Travis discloses a transversely arranged wire 20, to serve as a stopping means, where such wire would prevent a riser from freely moving, and also prevent the cones from being stacked. Thus, Travis does not suggest the recited feature of “the riser protection surrounding the riser.”

Independent claim 20, recites “lifting a flexible riser protection encompassing the riser upwards, the riser protection protecting at least an upper portion of the riser by yielding to the force imposed by ice when in a retracted position, the upper end of the riser protection being attached to the buoy and the riser protection surrounding the riser,” and is patentable for reasons analogous to claim 1. Further, Giannesini does not suggest lifting its reservoir 3 upwards.

Independent claim 29 is directed to a method, and recites “lowering a separate, prefabricated unit comprising a reel, a riser reeled on to the reel, and a top configured to form a top of the protective structure, down into the protective structure and connecting an end of the reeled riser to a supply line for hydrocarbons, the connection being achieved by means of a swivel.” As noted in the Amendments filed on January 29, 2008, and September 5, 2007, Giannesini and Travis fail to suggest at least this feature of claim 29, and such a feature would not have been inherent in Giannesini and Travis. Giannesini does not suggest any top for its reservoir 3 separate from a lower portion, and thus cannot suggest lowering a

prefabricated unit comprising a top of its reservoir. Moreover, assuming arguendo that riser reels are known in the art, the Patent Office has not supplied a reference that suggests incorporating a riser reel with a top of a protective unit. Travis fails to cure the deficiencies of Giannesini.

The dependent claims are patentable for at least the same reasons as their respective independent claims, as well as for further patentable features recited therein. For example, as noted in the Amendments filed on January 29, 2008, and September 5, 2007, claim 2 recites “wherein the riser is protected at least along a portion of its length, the riser protection being suspended from the submerged turret buoy by means of a plurality of chains or wires.” Giannesini and Travis do not disclose or suggest any riser protection being suspended from a submerged turret buoy by means of a plurality of chains or wires. Claim 7 recites “wherein the riser may be completely retracted into the protective structure when idle, the riser being stored on a reel arranged inside the protective structure.” As noted in the Amendments filed on January 29, 2008, the Patent Office has not supplied any reference that discloses or suggests any riser being stored on a reel arranged inside a protective structure.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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